

What I claim is:

1. A method for supporting CDMA soft handoff of data packets between base stations and mobile terminals in an IP network, said method comprising the steps of

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transmitting a plurality of redundant data packets to a mobile terminal or to a base station,

10 at the mobile terminal or at a mobile switching center in the IP network dividing received data packets into individual IP data segments,

selecting quality metric standards to determine the quality of the data segments,

15 determining the quality value of individual data segments using the selected metric standards,

packaging the quality values with the corresponding data segments, and

20 assembling a best IP data packet payload in accordance with the highest quality IP data segments for each time interval.

2. The method in accordance with claim 1 wherein said packaging step comprises packaging the quality values as a quality vector having elements each corresponding to the quality value of its corresponding data segment.

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3. The method in accordance with claim 1 wherein said transmitting step transmits the plurality of redundant data packets to multiple base stations.

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4. The method in accordance with claim 2 further comprising creating a payload quality matrix for each quality metric standard.

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5. The method in accordance with claim 4 wherein said step of creating quality metric matrix is performed at a mobile terminal for a forward link from a base station to the mobile terminal.

5 6. The method in accordance with claim 4 wherein said step of creating quality metric matrix is performed at the mobile switching center in the IP network for a reverse link call from the mobile terminal to one more base stations.

10 7. The method in accordance with claim 4 wherein each row of the quality matrix is one of the quality metric vectors for a particular IP data packet.

8. The method in accordance with claim 2 wherein said step of assembling the best IP data packet payload is determined from the quality matrix by deriving a payload quality function which determines which of the received individual data packet segments has the highest quality for each time interval.

15 9. The method in accordance with claim 8 further comprising the step of adding IP header information to the assembled best IP data packet payload.

20 10. The method in accordance with claim 1 wherein said step of transmitting comprises multicasting the redundant data packages from a plurality of base stations to a mobile terminal.

11. The method in accordance with claim 1 wherein the transmitted redundant data packages include a header field and further comprising the step of separating the header field from the data packages prior to the step of dividing the received data packets into the individual data segments.

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